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专业生产泥浆泵70余年

SPECIALIZED IN SLURRY PUMP FOR
OVER 70 YEARS



高效耐磨系列挖泥泵

**DREDGING
PUMP**



强大泵业集团有限公司
KINGDA PUMP GROUP COMPANY LTD.

ABOUT US

企业简介

100余名

专业技术人员

300余名

中高级技术工人

30多项

专利技术



强大泵业成立于1948年，现已成为全球领先的高性能泵送解决方案供应商和制造商，适用于采矿、建筑、环保、疏浚、电厂、化工、农田、盾构、水处理和其他涉及泥浆或污水等行业。

Kingda Pump was founded in 1948, now it has been a global leading supplier and manufacturer of high performance pumping solutions for mining and mineral processing, aggregates, environmental protection, dredging, tunneling, water treatment and other industries that involve slurry or sewage.



强大泵业占地300余亩，总建筑面积8万多平方米，年可生产渣浆泵、疏浚泵、脱硫泵、盾构用泵等各类工业用杂质泵10000台套，各类泵配件2800T。

Kingda Pump covers an area of more than 50 acres, with a total construction area of more than 80,000 square meters. It can produce 10,000 sets of various industrial pumps such as slurry pumps, dredging pumps, desulfurization pumps, tunneling pumps, and various pump parts 2800T.



强大泵业拥有主要生产设备378台，特种设备73台。具备从模型制造、铸造、热处理、机加工、钣金、衬胶、装配、试验等全制造链的生产能力。

Kingda Pump has 378 sets of main production equipment and 73 sets of special equipment. It has the production capacity of the whole manufacturing chain from model manufacturing, casting, heat treatment, machining, sheet welding, rubber lining, assembly, testing, etc.



强大泵业为绿色系统集成，包含高效多相浆体输送泵的绿色设计、制造、试验平台建设，生产绿色产品及全生命周期绿色分析建设。

Construction of a green design platform including high-efficiency multiphase slurry pumps, Green manufacturing platform construction, Green test platform construction, Production of green products and construction of green analysis of the whole life cycle.



目前在国内，强大渣浆泵市场占有率已达到60%，污水泵市场占有率已超30%，强大泵业在国内外享有盛誉。

At present, in China, Kingda company's slurry pump market share has reached about 60%, and the sewage pump market share has exceeded 30%. Kingda pump enjoys a high reputation at home and abroad.

向世界级百年工厂奋进
ve to be a world-class century-old factory

HISTORY

企业发展历史



强大泵业集团始建于1948年其前身是石家庄恒大铁工厂
Kingda was founded in 1948, its predecessor was Shijiazhuang Hengda Iron Works

1948



转隶国家第一机械工业部直属厂改称第一机械工业部石家庄水泵厂
Subordinate directly to the First Ministry of Machinery Industry and renamed as Shijiazhuang Water Pump Works of the First Ministry of Machinery Industry

1964



改制为石家庄泵业集团有限责任公司
Restructured into Shijiazhuang Pump Industry Group Co., Ltd.

2000



改制为石家庄强大泵业集团有限责任公司
Restructured into Shijiazhuang Kingda Pump Industry Group Co., Ltd.

2006



强大泵业集团行唐泵业有限公司
Kingda Group Xingtang Pump Company Ltd.

2015



强大泵业集团有限公司
KINGDA PUMP GROUP COMPANY LTD.

至今

COMPANY CAPABILITY DESCRIPTION

公司能力介绍



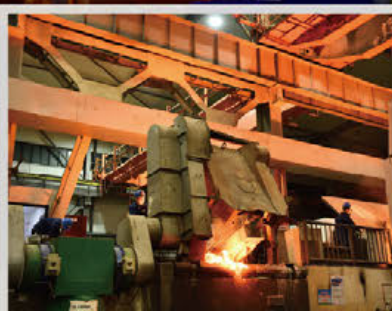
成品库
Finished Product Warehouse



立体化自动仓库
Stereoscopic Automated Warehouse



台式热处理炉
Bench Type Heat Treatment Furnace



铸造工艺
Casting Process



CAE铸件模拟
CAE Casting Simulation



高压试泵站
Pump Test Station



除尘环保设备
Dust Free And Environmental
Protection Equipment



八米立式车床
8m Vertical Lathe



龙门钻铣中心
Gantry-moving Type Milling
Machining Center

模型制造采用数控设备加工，能有效保证零件精度；铸造熔炼设备拥有中频感应炉10台，单体铸件重量可达28吨；炉前成份检验采用直读光谱分析仪，成份检测精确，可有效保证铸件质量；造型采用树脂砂生产，公司拥有连续混砂机设备6台，单机混砂能力40t/h；抛丸清理机5台，喷砂房1座，清理毛坯单件最大重量30吨；25t/h自动砂处理线2条，台车式热处理炉5台，可满足30吨以下零件的软、硬化热处理要求。

加工设备金属切削机床100余台，其中8米立车3台， $\phi 130$ - $\phi 200$ 落地镗铣中心3台，立式、卧式加工中心20余台；增置HL-16000型硬支承平衡机一台，可完成16吨以下叶轮的动平衡实验要求，淘汰了平衡架式静平衡方式，显著提高水泵转子件的旋转精度和水泵的运行可靠性。

The Pattern is processed by numerical control equipment, which can effectively ensure the accuracy of the parts. Casting and Melting equipment has 10 intermediate frequency induction furnaces, weight of a single casting can reach 28 tons. Direct Reading Spectrum Analyzer is used for the component inspection before the furnace, which can effectively guarantee component detection and casting quality. Moldings are produced with resin sand, 6 continuous sand mixers, capacity of 40t/h. There are 5 shot blasting machines, 1 sandblasting room, 2 automatic sand processing lines and 5 trolley-type heat treatment furnaces, handle single casting 30MT max.

Machining Workshop has more than 100 metal cutting machine tools, including three 8-meter vertical lathes, three $\phi 130$ - $\phi 200$ floor boring and milling centers, and more than 20 vertical and horizontal machining centers. HL-16000 type balancing machine complete meet dynamic balance test requirements of impellers under 16 tons, significantly improved the rotation accuracy and operation reliability of the pump.

采用先进的氮化硼刀具和合理的切削工艺，高效解决了高硬度耐磨材料的加工问题，大幅度提高了加工效率和精度。钣焊车间、衬胶车间设备齐全；拥有各类先进试验、测量、分析仪器设备500台。全部设备控制基本实现数字化（数控、数显），构成完整的生产工艺装备体系，具备强大的生产制造能力。

公司具有年产万吨的铸造能力，能生产多种黑色和有色金属材料，如灰铁、球铁、铜、铝、不锈钢、硬镍、高铬等金属；公司设有室内高压试泵站和低压试泵站，保证了出厂前产品性能100%合格；公司拥有各类先进的机加工数控设备，具有对大型旋转体零件进行动平衡测试的能力，保证了产品的精度和质量。

Using advanced boron nitride cutting tools and reasonable cutting technology, it efficiently solves the processing problem of high hardness and wear-resistant materials, and greatly improves the processing efficiency and precision. The welding workshop and the rubber lining workshop are well-equipped; there are 500 sets of various advanced testing, measuring and analyzing instruments and equipment. All equipment control is basically digitalized (digital control, digital display), forming a complete production process and equipment system, with strong production and manufacturing capabilities.

The company has an annual output of 10,000 tons of casting capacity, and can produce a variety of ferrous and non-ferrous metal materials, such as gray iron, ductile iron, copper, aluminum, stainless steel, hard nickel, high chromium and other metals; the company has an indoor high-voltage testing pump station and the low-voltage testing pump station, which ensure that the pump performance is 100% qualified before leaving the factory; the company has various advanced machining and digital control equipment, and has the ability to perform dynamic balance tests on large rotating spare parts, ensuring the accuracy and quality of the products.

WHY CHOOSE KINGDA

为什么选择我们



TECHNICAL SUPPORT

技术支持

强大与高校科研院所深度合作，持续加大新技术、新产品研发投入，实现产品升级换代。拥有国内首家渣浆泵研究实验室，并在厂区设有专门的产品研究中心，采用最先进的技术，提供快速有效的解决方案。

Kingda has in-depth cooperation with scientific research institutes of universities, continues to increase investment in research and development of new technologies and new products, and realizes product upgrading. It has the first slurry pump research laboratory in China, and has a special product research center in the factory area, using the most advanced technology to provide fast and effective solutions.



PROFESSIONAL TEAM

专业团队

工贸一体的大型中国工厂，采用PLM、ERP等数字化管理系统，提升精细化管理水平，全时订单进度可视化。

The large-scale Chinese factory integrating industry and trade adopts digital management systems such as PLM and ERP to improve the level of refined management and visualize the progress of orders all the time.



QUALIFICATION

资质证书



AFTER-SALES SERVICE

售后服务

拥有专业的售后工程师团队，7*24小时在线快速响应。

With a professional after-sales engineer team, 7*24 hours online quick response.

COMPANY PRESENTATION

公司展示



CASTING WORKSHOP 铸造车间



CASTING WORKSHOP 铸造车间



MACHINING WORKSHOP 机加车间



ASSEMBLY WORKSHOP 装配车间



MEETING ROOM 会议室



RECEPTION ROOM 会客室



DINING ROOM 员工食堂



STAFF ACTIVITY AREA 员工活动区

QUALITY INSPECTION

质量检验

公司设有质检试验台，严格检验进厂的原/辅材料和产品零件，对送检样品按国家标准进行抗拉强度、延伸率或者冲击试验、硬度检测、金相显微组织，并出具相应报告，对新材料、新工艺、新技术进行理化试验及分析研究，对轴料化学成分分析，确保数据准确，炉前材质化验，保证每炉次的最终成分在内控范围内。

The company has a quality inspection center to inspect the raw/auxiliary materials and product parts strictly, includes conduct tensile strength, elongation or impact tests, hardness tests, and metallographic microstructures on the samples submitted for inspection according to national standards, and issue corresponding reports, conduct physical and chemical tests and analytical research on new materials, new processes, and new technologies, analyze the chemical composition of the shaft material to ensure accurate data, and test the material before the furnace to ensure that the final composition of each furnace is within the internal control range.

QUALITY INSPECTION
BEFORE FURNACE
炉前质检



MACHINING PROCESS QUALITY INSPECTION 机加质检



机加工时执行“首件检验”、“序检”和“完工（成品）检验”三道工序，及时发现每个工序可能存在的质量问题，确保所检验零件的数据一致性，并验证使用的测量器具的有效性和准确性。

根据产品图纸和加工工艺要求，比对工件的尺寸、形状、表面质量等关键指标，确保产品达标。如发现不合格品，及时剔除，以防其进入下一个工序或下一道工艺环节，达到对工序的有效控制。

During the machining process, we carry out three inspection procedures: " Initial Production Inspection ", " In Process Inspection " and " Final Quality Control ", to promptly discover possible quality problems in each procedure and ensure the data consistency of the inspected parts, and verify the validity and accuracy of the measuring instruments used.

According to the product drawings and processing technology requirements, compare the key indicators such as the size, shape, and surface quality of the workpiece to ensure that the product meets the standard. If unqualified products are found, they shall be eliminated in time to prevent them from entering the next process or the next process link, so as to achieve effective control of the process.

PUMP TEST STATION

试泵站

强大泵业集团装配车间建有测试精度达到国际标准ISO9906中的1级、GB/T3216中1级的试泵站，渣浆泵的试验能力和试验精度为国内第一。试泵站分为高压试验区 and 低压试验区，设有两个水池和七个试验台，所有试验台均配备有以下仪表：高精度的电磁流量计、压力传感器、多功能电力仪表。数据自动采集并实时处理、计算机网络共享数据、智能评定测试结果。

Kingda assembly workshop has built a performance test station with a testing accuracy that reaches level 1 in the international standard ISO9906 and level 1 in GB/T3216. Both the test capability and test accuracy of the slurry pump are the first in China. The pumping test station has a high-voltage test area and a low-voltage test area, includes 2 pools and 7 test benches. All test benches are equipped with the following instruments: high-precision electromagnetic flowmeters, pressure sensors, and multi-functional electric meters. Automatic data collection and real-time processing, computer network sharing data, intelligent evaluation of test results.

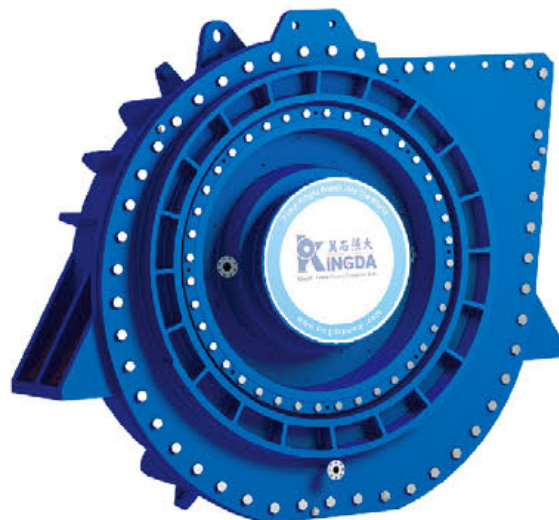


WN SERIES DREDGING PUMPS

WN系列挖泥泵 产品特点

500以下口径WN挖泥泵采用单泵壳、单级单吸悬臂卧式结构，600以上口径WN挖泥泵采用双泵壳、单级单吸悬臂卧式结构，WNQ型水下挖泥泵采用单泵壳结构，减轻泵重，便于升降移动。也用于江河采砂和采矿用船只。

WN dredging pumps with diameters below 500 adopt single pump casing, single-stage single-suction cantilever horizontal structure, dredging pumps with diameters above 600 WN cabin pumps adopt double pump casings, single-stage single-suction cantilever horizontal structure, WNQ type The underwater dredging pump adopts a single pump casing structure, which reduces the pump weight and facilitates lifting and moving. It is also used for river sand mining and mining vessels.



产品参数

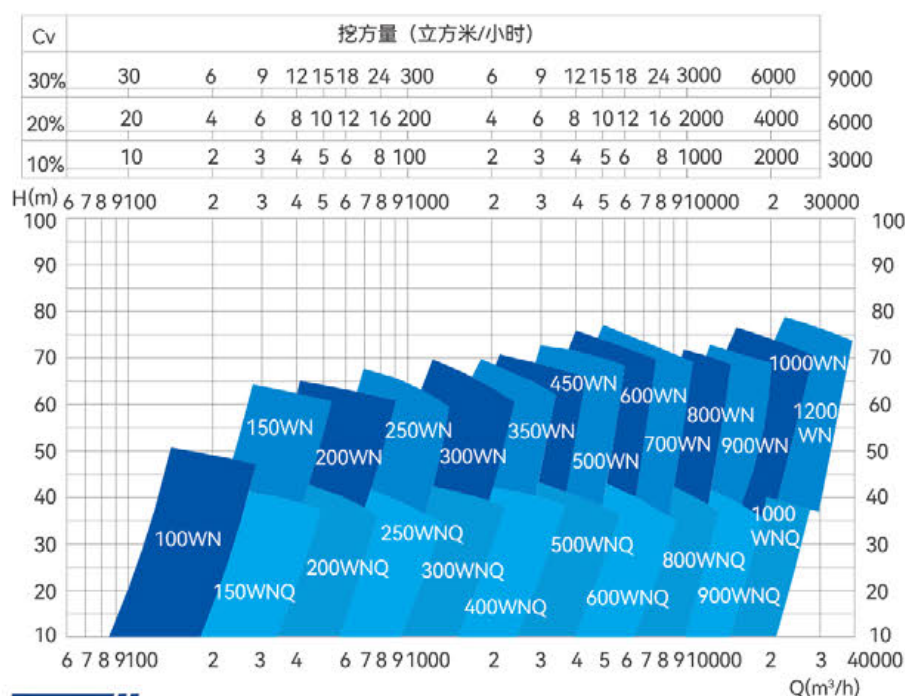
泵出口口径 (mm)	200~1200
流量 (m³/h)	600~25000
扬程 (m)	20~80
材质	M

PRODUCT PARAMETERS

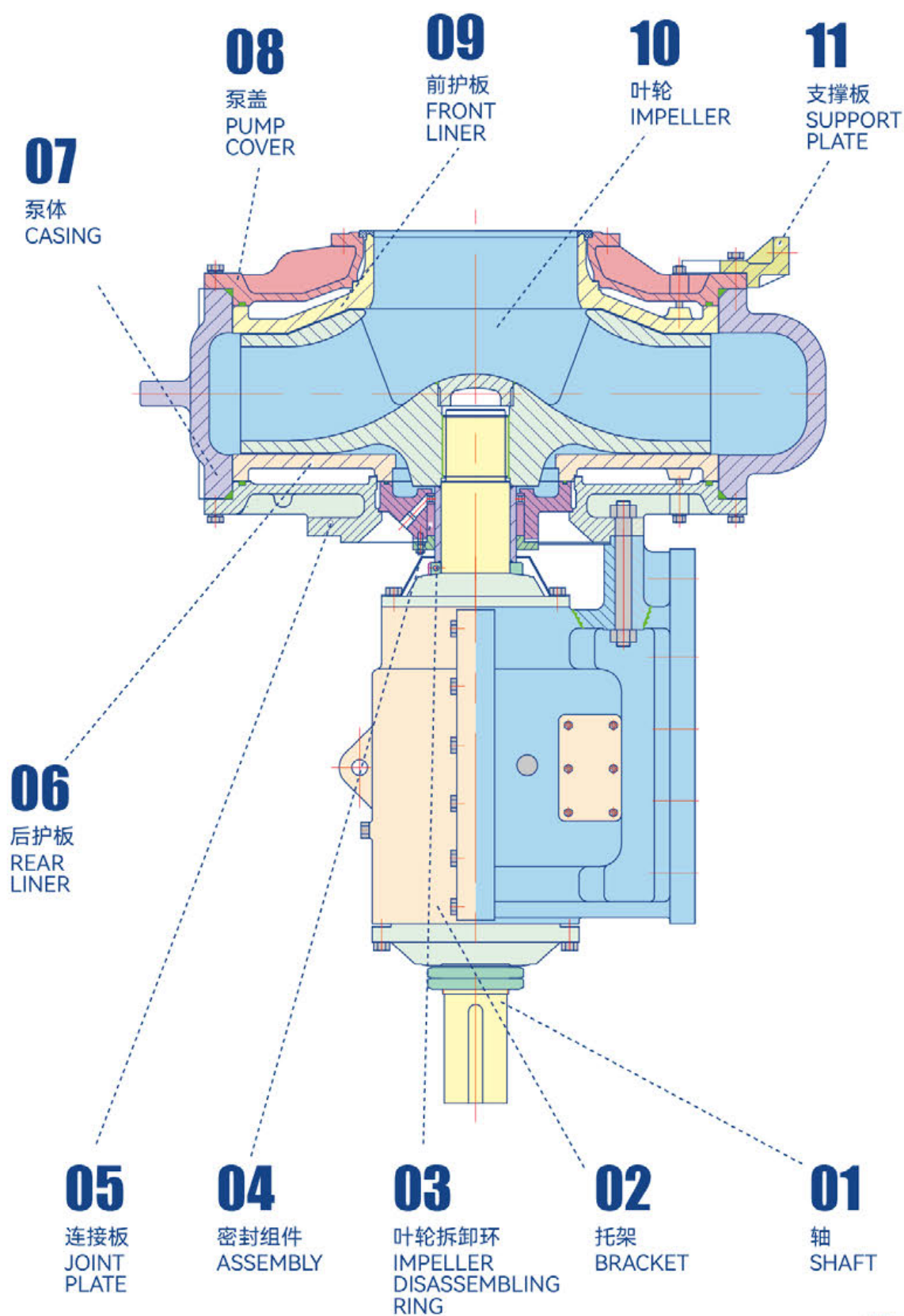
Discharge Diameter(mm)	200~1200
Flow Rate(m³/h)	600~25000
Head(m)	20~80
Material	M

WORKING RANGE OF WN SERIES DREDGING PUMP

WN系列挖泥泵 工作范围

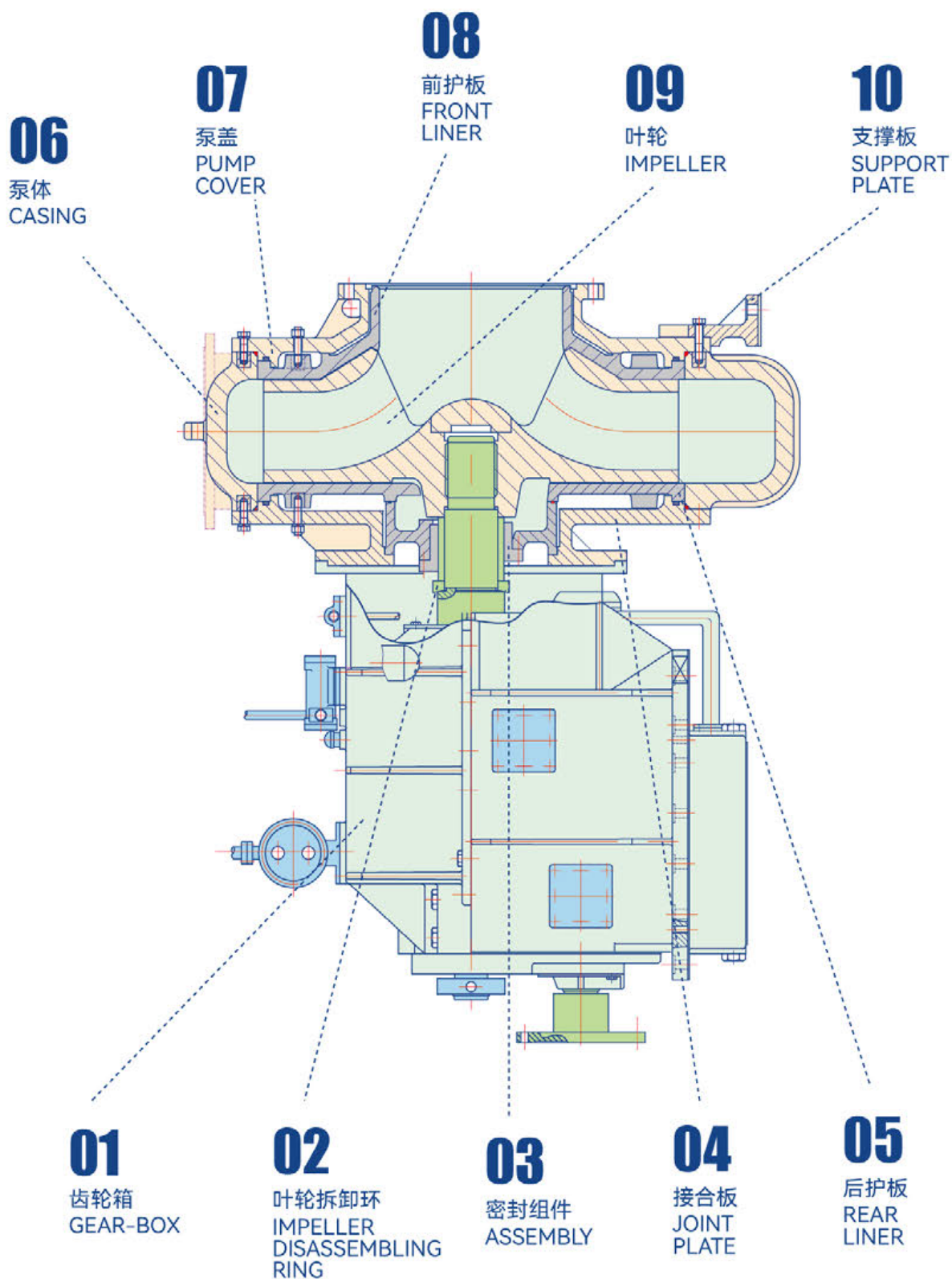


ONLY FOR PRELIMINARY SELECTION
仅供初步选型用

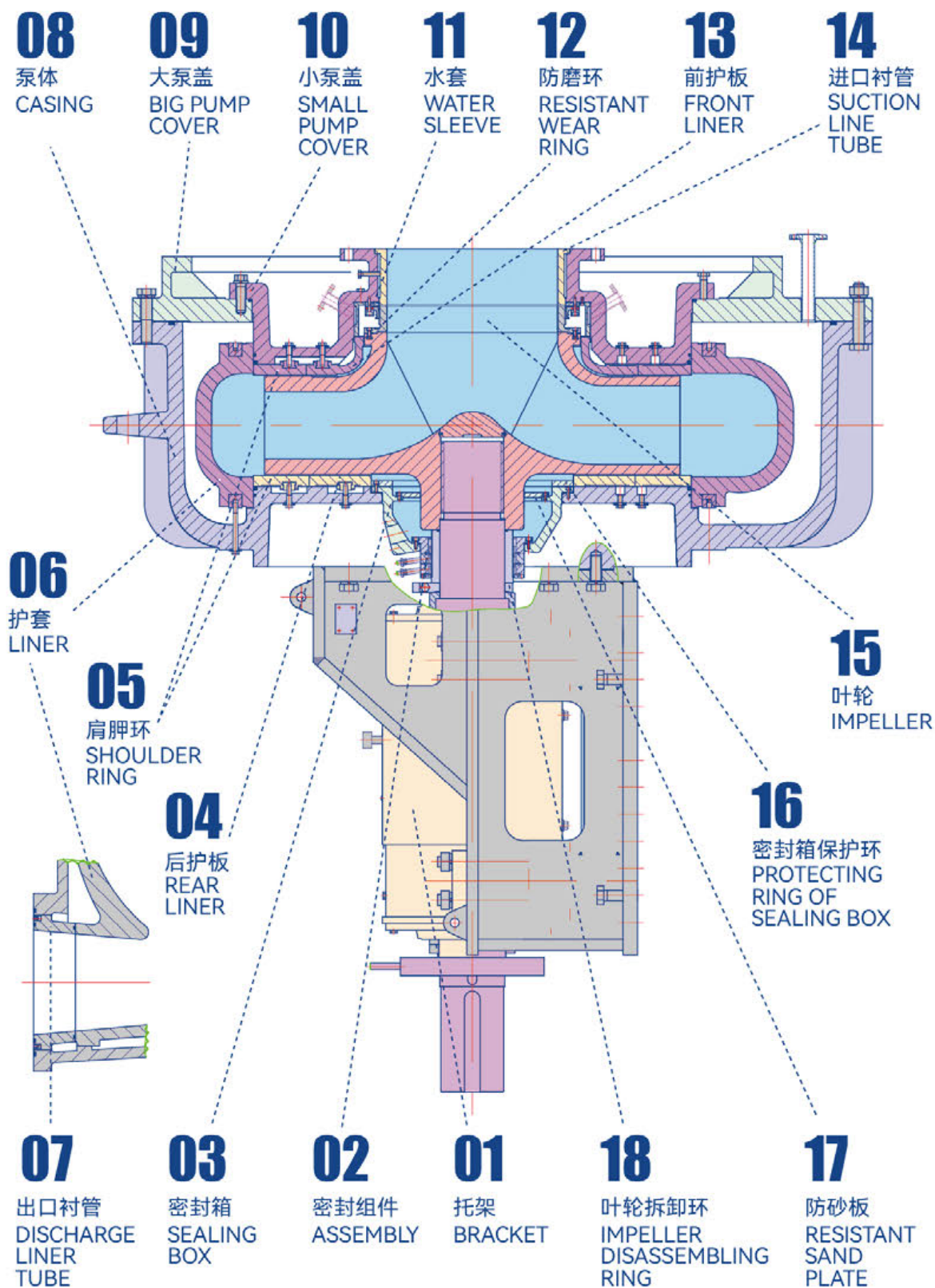
THE CONSTRUCTION OF 350~500 WN
DREDGING PUMP WITH FRAMEWN350~500型挖泥泵
自带托架结构示意图

THE CONSTRUCTION OF 350—500 WN DREDGING PUMP WITH PUMP BOX INTEGRATED

WN350~500 型挖泥泵 泵箱合一结构示意图

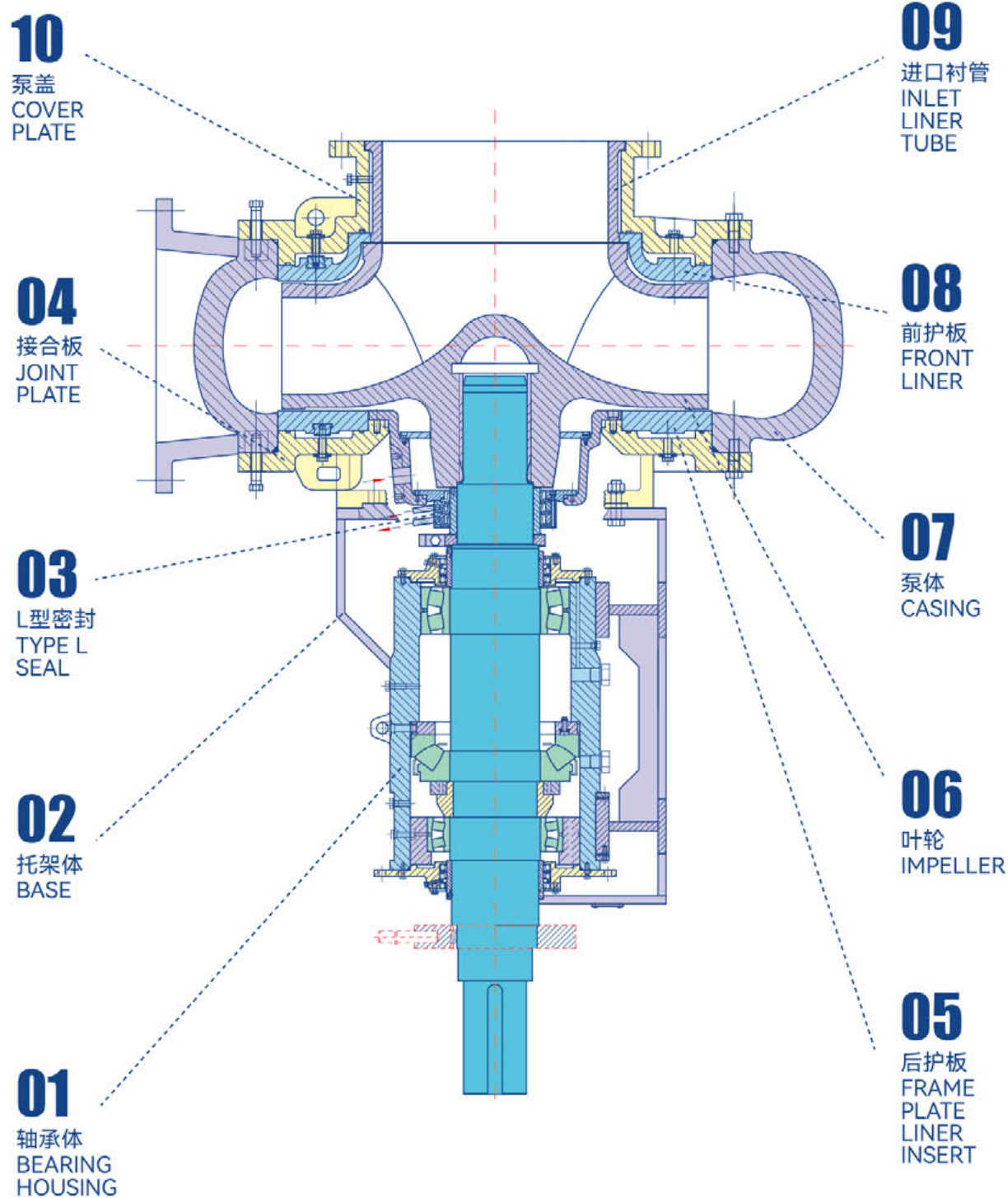


WN600~1200型挖泥泵结构示意图



THE CONSTRUCTION OF LARGE SINGLE SHELL DREDGING PUMP

大型单壳挖泥泵结构图



WN SERIES DREDGING PUMP PERFORMANCE

(ONLY FOR PRELIMINARY SELECTION)

WN型系列挖泥泵性能参数

(仅供初步选型)

型号 Type	流量 Capacity (m ³ /h)	扬程 Head (m)	转速 Speed (r/min)	效率 Efficiency (%)	汽蚀余量 NPSHr (m)	进口直径 Inlet Diameter (mm)	出口直径 Outlet Diameter (mm)	最大过流粒径 Max.Diameter of Flowd Partice (mm)	重量 Weight (kg)
200WNIQ	600~800	20~40	700~900	60~65	≤4.5	250	200	178	2500
200WN	750~1000	40~65	700~850	70~72	≤4	250	200	180	3150
250WNIQ	950~1100	20~40	500~700	65~70	≤4	300	250	220	4450
250WN	1100~1300	40~65	500~650	70~74	≤4	350	250	144	5000
300WNIQ	1500~1800	20~40	400~600	65~68	≤4	350	300	241	6000
300WN	1800~2200	40~65	400~550	74~78	≤4	450	300	241	7000
350WN	2000~3000	40~65	400~550	74~78	≤4.5	420	350	245	7300
400WNIQ	2800~3200	20~40	400~550	74~78	≤4.5	450	400	250	7500
450WN	3200~3850	40~67	350~500	76~80	≤4.5	600	450	254	7850
500WNIQ	3600~4200	20~40	220~320	72~75	≤4.8	600	500	330	8000
500WN	4500~5500	40~65	350~450	78~80	≤4.8	650	500	250	11300
600WN	6000~8000	60~70	450~500	78~83	≤6	700	600	220	30000
600WNIQ	5000~7600	25~35	350~400	80~85	≤6	700	600	220	16000
700WN	8000~12000	50~70	320~380	80~85	≤6	760	700	280	45000
700WNIQ	7000~10000	18~26	240~280	81~85	≤6	760	700	280	21000
800WN	10000~15000	47~68	300~360	81~85	≤6	800	750	300	40000
800WNIQ	9000~14000	20~40	200~280	81~84	≤6	800	750	300	23000
900WN	12000~19000	25~55	175~250	83~87	≤6	1000	900	340	105000
900WNIQ	11000~16000	20~40	161~230	83~86	≤6	1000	900	340	80000
1000WN	16000~25000	23~76	181~290	85~87	≤6	1200	1000	350	121000
1000WNIQ	16000~25000	20~27	140~170	82~85	≤6	1200	1000	350	91000
1200WN	20000~36000	40~70	170~260	85~87	≤6	1300	1200	360	141000

DREDGING PUMP BELOW 300 CALIBER

300口径以下挖泥泵

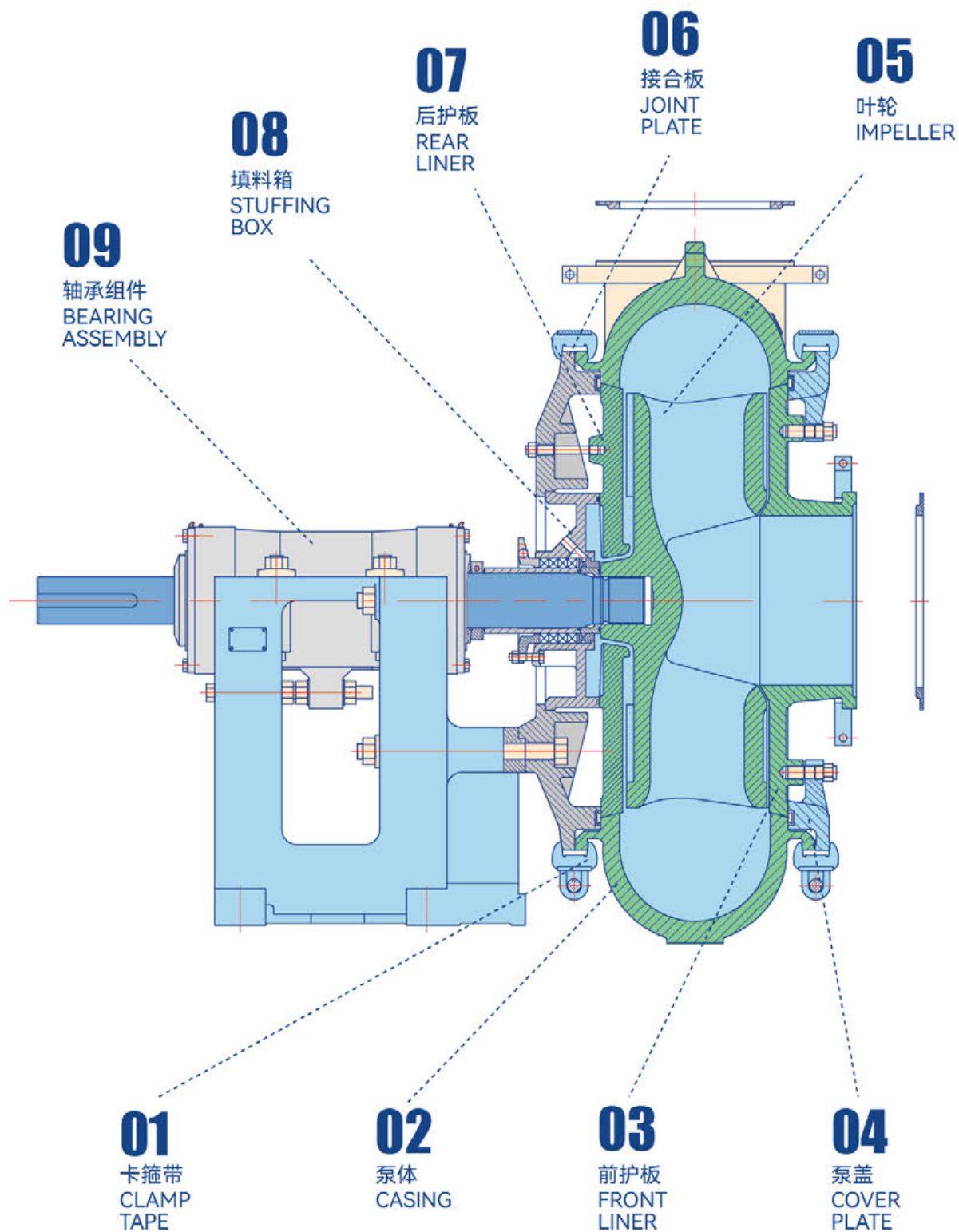


小型挖泥泵一般采用单泵壳结构，叶轮流道宽，叶片数量少，便于较大固体颗粒通过。泵的吐出口方向可任意旋转，更适于船舱内安装。气蚀性能好，可抽送更大浓度的泥沙。适用于河道及水库清淤，也可用于江河采砂和采矿船。

Small dredging pumps generally adopt a single pump casing structure, with a wide impeller flow channel and a small number of blades, which is convenient for larger solid particles to pass through. The discharge direction of the pump can be rotated arbitrarily, which is more suitable for installation in the cabin. It has good cavitation performance and can pump a higher concentration of silt. It is suitable for dredging rivers and reservoirs, and can also be used for river sand mining and mining ships.

DREDGING PUMP BELOW 300 CALIBER CONSTRUCTION

300口径以下 挖泥泵结构图



ELECTRICAL AUTOMATION

电气自动化

公司拥有独立的成套电气、自动化和信息技术专业研发和设计部门，不但致力于挖泥泵产品的精益求精，更执著于为疏浚行业用户提供完整的、高效的、可靠的一站式流体系统解决方案。

进入疏浚领域发展至今，能够提供疏浚行业等与用泵有关的配套解决方案及产品，如挖泥泵机组、电力拖动/驱动、供电系统、排污系统、监控系统以及远程通讯系统等；

我司自主研发的挖泥泵组成套设备，具有性能先进、功能全面、专业性强特点。其控制系统通过实时采集主泵运转参数，上传至我司远程数据中心，通过自主研发的数据分析软件将运转参数和泵特性进行实时分析，判断泵及环流系统运转工况及故障分析，研发中的智能泵远程监控系统（平台）更是采用我司多年实践经验积累的智能算法模型，结合大数据分析手段，具有磨损分析、状态预警、远程运维等强大功能，势必将疏浚领域挖泥泵的应用推向全新高高度。

Our company has an independent R&D department for electrical, automation, and IT systems. It's dedicated not only to refining dredging pump products but also to delivering comprehensive, efficient, and reliable one-stop fluid system solutions for the dredging industry.

Since entering the dredging sector, we've been providing related pump solutions and products, including dredging pump units, electric power drive systems, power supply systems, sewage discharge systems, monitoring systems, and remote communication systems.

Our dredging pump equipment offers advanced performance and functionality. Its control system gathers real-time data on pump operation, uploaded to our remote data center for analysis. Our intelligent monitoring system, based on years of experience and advanced algorithms, provides features like wear analysis and remote maintenance, promising to elevate dredging pump applications to new heights.

温度振动一体变送器-LORA无线组网型

温度振动一体变送器被广泛应用在水泵等旋转设备温度和振动的在线测量。

电机故障判定方法

以电机正常运行时测定的振动速度、表面温度为基础，设定电机运行正常测定范围，当电机振动速度或表面温度超过正常范围即可判定电机出现故障。

传感器介绍

温度变送器是一款选用高性能的 MEMS 芯片，采用嵌入式技术，温度传感技术、振动传感技术并发生产的一款高性能、低功耗、抗干扰和复合型振动传感器。

安装说明

Ex ia IIC T4 Ga; Ex ia IIC T200 195°C Da

整机结构及安装说明

- ① 外壳整体采用铝合金材料。
- ② 在恶劣条件下可以采用螺栓安装，金属壳体上的标准螺纹（M8*1.25*10、M5*7）可与安装部位快速连接，其余螺纹可通过螺纹转接头形式连接。
- ③ 同时MS螺纹也可以采用磁吸安装方式，现场免去打孔困难，安装更加方便。
- ④ 若需接入 X、Y 轴数据有特殊需求，需要着重注意传感器底部连接情况，若仅监测单轴数据建议使用 Z 轴，即安装完成后垂直于设备底面的方向。

MS螺纹选型设备尺寸



MS螺纹及磁吸选型设备尺寸



- ⚠ 注意：购买RS485型温度振动一体机时请确认以下参数：
- 测量场合频率响应范围
- 安装方式
- 振动测量方向
- 是否耐高温

LORA无线组网型温度振动变送器主要参数说明				
测量范围	X、Y、Z轴振动速度	测量精度	剩余电压	信号号
测量范围	0-50mm/s	-40~80℃		
典型精度	±1.5%of50mm/s (@1KHz, 10mm/s)			
分辨率	0.1mm/s	0.1℃		
环境温度范围	-40~80℃ (无冷凝)			

LORA无线组网型温度振动变送器主要参数说明	
信号输出	LORA无线信号
振动测量方法	X、Y、Z三轴或单轴可选
供电方式	内置锂电池供电 (3.6V 防短路锂电池)
电池续航时间	使用寿命可达8年 (上传间隔1小时)
数据上传间隔	默认60min，最长上传间隔可设 1 分钟
防护等级	IP67
测量范围	10-1600Hz, 10-5000Hz可选
变送输出精度及典型应用	普通精度 -40~+85℃，高温精度 -40~+150℃ -40℃~+85℃，0%RH~80%RH
工作频率	实时在线
检测周期	

温度振动一体变送器-NB-IoT无线网络型

温度振动一体变送器被广泛应用在水泵等旋转设备温度和振动的在线测量。

电机故障判定方法

以电机正常运行时测定的振动速度、表面温度为基础，设定电机运行正常测定范围，当电机振动速度或表面温度超过正常范围即可判定电机出现故障。

传感器介绍

温度变送器是一款选用高性能的 MEMS 芯片，采用嵌入式技术，温度传感技术、振动传感技术并发生产的一款高性能、低功耗、抗干扰和复合型振动传感器。

安装说明

一次性安装3年，无需维护。

整机结构及安装说明

- ① 外壳整体采用铝合金材料。
- ② 在恶劣条件下可以采用螺栓安装，金属壳体上的标准螺纹（M8*1.25*10、M5*7）可与安装部位快速连接，其余螺纹可通过螺纹转接头形式连接。
- ③ 同时MS螺纹也可以采用磁吸安装方式，现场免去打孔困难，安装更加方便。
- ④ 若需接入 X、Y 轴数据有特殊需求，需要着重注意传感器底部连接情况，若仅监测单轴数据建议使用 Z 轴，即安装完成后垂直于设备底面的方向。

MS螺纹选型设备尺寸



MS螺纹及磁吸选型设备尺寸



- ⚠ 注意：购买设备时请确认以下参数：
- 安装方式
- 是否耐高温

NB-IoT无线组网型温度振动变送器主要参数说明				
测量范围	X、Y、Z轴振动速度	测量精度	剩电量	信号号
测量范围	0-50mm/s	±0.1mm/s		
典型精度	±0.1mm/s (0.1Hz, 100Hz)			
分辨率	0.1mm/s	±0.1℃		
环境温度	工作温度: -40℃~+85℃			

NB-IoT无线组网型	
信号输出	X、Y、Z三轴
供电电压范围	内置锂电池 (3.6V 对普通锂电池)
供电方式	使用锂电池供电 (3年上传间隔1小时)
数据传输周期	默认60min，最长间隔可设置1分钟
防护等级	IP67
频率响应范围	10-1600Hz, 10-5000Hz可选
使用温度及湿度范围	普通版: 40-85℃, 典型版: 40-150℃ -40℃~80℃, 0%RH~80%RH

振动速度、温度一体化监测预警系统-LORA无线组网监测方案：

基于LORA无线通讯 视距无线1.5~3Km传输 电池供电完全免布线 曲线分析

微信、短信、振铃、邮件多种远程告警 24H在线监测记录 X、Y、Z三轴立体监测



MILESTONE

里程碑

100 SHIPS PROJECT

百船 工程

80年代，我公司的引进产品砂砾泵(G,GH)系列作为疏浚用泵为国家的江河清淤做出了很大贡献。在1999年的时候，为了满足我国河湖清淤疏浚的迫切需要,我公司承担了"国家河湖疏浚挖泥船建造项目(百船工程)"中的4种型号的挖泥泵，250WN、300WN、450WN、500WN，在国家的江河治理工作中起到了至关重要的作用。

In the 1980s, our company's imported gravel pump series (G, GH) made significant contributions to the dredging of rivers and lakes in the country. In 1999, to meet the urgent needs of dredging rivers and lakes in China, our company undertook the "National River and Lake Dredging Dredger Construction Project (100 Ships Project)" with four models of dredge pumps: 250WN, 300WN, 450WN, and 500WN. These pumps played a crucial role in the national river management efforts.



LOCALIZATION OF ONE-METER DREDGE PUMP

强大泵业集团于2004年至2007年成功研制1000WN挖泥泵，实现了大型挖泥泵的国产替代。

2007年5月，由上海航道局投资建造的我国最大的13500m³耙吸式挖泥船，选用我公司自主研制的1000WN挖泥泵，继4月份通过船厂的清水运转后，又顺利通过出航后的挖泥试验，至此，开启了我国大型挖泥船、泵的国产化。



一米挖泥泵 国产化

From 2004 to 2007, Kingda Pump Group successfully developed the 1000WN dredge pump, achieving the localization of large dredge pumps.

In May 2007, China's largest 13,500m³ trailing suction hopper dredger, invested in and constructed by the CCCC Shanghai Dredging Co., Ltd., selected the domestically developed 1000WN dredge pump from our company. After passing the shipyard's clear water test in April, it successfully passed the dredging trial after sailing, marking the beginning of the localization of large dredgers and pumps in China.



TK1200 LARGE DREDGE PUMP

TK1200 大型挖泥泵

2012年至2014年,我公司参与了5000kW绞刀功率绞吸式疏浚船关键技术研究项目的泥浆泵设计,属于该项目的成员单位之一,并成功研制出TK1200大型挖泥泵;该项目被列入工信部“高技术船舶科研项目储备库”。

TK1200大型挖泥泵是目前为止亚洲最大自主研发的挖泥泵。

From 2012 to 2014, our company participated in the design of the slurry pump for the key technology research project of a 5000kW cutter power cutter suction dredger, as one of the member units of the project, and successfully developed the TK1200 large dredge pump. This project was included in the "High-Tech Ship Scientific Research Project Reserve Library" by the Ministry of Industry and Information Technology.

The TK1200 large dredge pump is currently the largest self-developed dredge pump in Asia.



APPLICATION

应用

IN-CABIN DOUBLE-SHELL DREDGE PUMP

舱内双壳 挖泥泵

位置: 安装在挖泥船的舱室内部, 通常位于船体中央或船尾部分。

功能: 吸取船舱内或水下的泥沙, 并通过长距离管道输送至储存仓或卸货管道释放到指定地点。

应用: 主要用于处理船舶吸取的沙子、泥浆和其他沉积物, 清除淤泥以维持水道通航能力。

Location: Installed inside the cabin of a dredging vessel, typically located in the central or aft part of the hull.

Function: Extracts sediment, such as sand and mud, from the cabin or underwater and transports it through long-distance pipelines to storage compartments or discharge pipelines for release at designated locations.

Application: Primarily used to handle sand, mud, and other sediments extracted by the vessel, clearing silt to maintain navigable waterways.



UNDERWATER SINGLE-SHELL DREDGE PUMP

水下单壳 挖泥泵

位置: 安装在疏浚船的潜水管或挂钩上, 可沉入水中吸取底泥和沉积物。

功能: 主要在水下工作, 直接吸取水底泥浆, 通过管道输送至船舶储存仓或至指定地点。

应用: 主要用于处理水底的沙子、泥浆和其他沉积物, 特别适用于水深较大或船只无法靠近的地区, 确保水道畅通和水深维持。

Location: Installed on the diving pipe or hook of a dredging vessel, capable of submerging to extract bottom sediment and deposits.

Function: Works primarily underwater, directly extracting bottom mud and sediment, then transporting it through pipelines to the vessel's storage compartments or to designated locations.

Application: Mainly used to handle underwater sand, mud, and other sediments, especially suitable for areas with greater water depth or where vessels cannot approach, ensuring navigable waterways and maintaining water depth.



WN DREDGE PUMP AUXILIARY EQUIPMENT

WN 挖泥泵辅助设备

BEARING INTELLIGENT LUBRICATION AND COOLING SYSTEM

轴承智能润滑 冷却系统

轴承智能润滑冷却系统为泥泵轴承提供冷却润滑油，降低运行温度并延长使用寿命。该封闭系统根据轴承温度调节供油压力和流量，采用单油泵或双油泵系统提高可靠性。

The bearing intelligent lubrication and cooling system provides cooling lubricant oil to the dredge pump bearings, reducing operating temperature and extending service life. This closed system adjusts oil pressure and flow according to bearing temperature and uses a single or dual oil pump system to enhance reliability.



AUTOMATIC WATER SEAL CONTROL SYSTEM

封水自动 控制系统

封水自动控制系统为泥泵提供稳定的冷却、润滑、冲洗和压力水。系统的封水泵通过变频控制，根据主泵工况调节供水流量和压力，确保封水量和压力在经济工况下运行，节省能源。

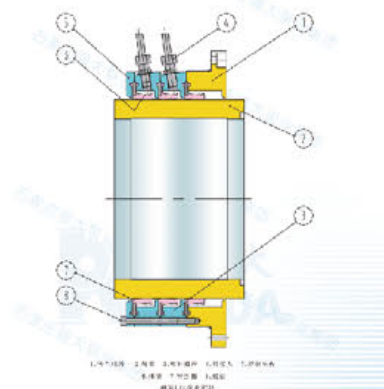
The automatic water seal control system provides stable cooling, lubrication, flushing, and pressure water to the dredge pump. Controlled by a variable frequency drive, it adjusts water flow and pressure based on the main pump's conditions, ensuring economical operation and saving energy.



L Seal | L密封

对开L型橡胶密封组件，是为我公司大型挖泥泵配套的专用橡胶密封，具有安装维护方便、通用性强，在疏浚系统工况运行可达到长期的密封效果。

The split L-type rubber seal assembly is a specialized rubber seal designed for our company's large dredge pumps. It features easy installation and maintenance, strong versatility, and can achieve long-term sealing effects under dredging system conditions.

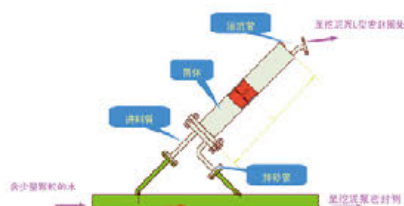


SAND-WATER SEPARATOR

砂水 分离器

砂水分离器去除水中砂粒，利用密度差异使砂沉降并排出，液体从溢流管排出，完成分离。砂水分离器在泥泵封水系统中，通过分离含砂封水，提供洁净水冷却和润滑泥泵L型密封圈，延长其寿命。

The sand-water separator removes sand particles from water by utilizing density differences, allowing sand to settle and discharge while the liquid exits through an overflow pipe. In the dredge pump water seal system, it ensures clean water for cooling and lubricating the L-type sealing ring, thus extending its service life.





TECHNOLOGY R&D AND DESIGN FOR HIGH GRADE PRODUCT

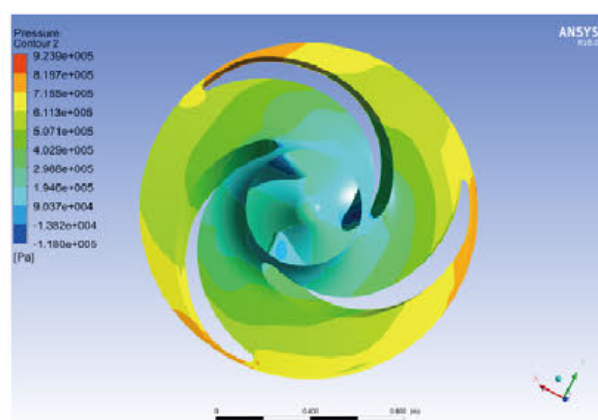
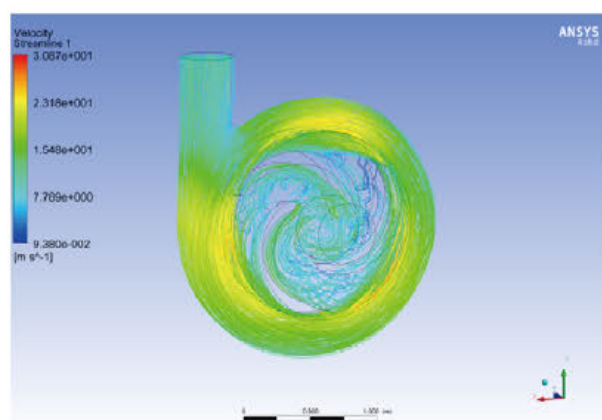
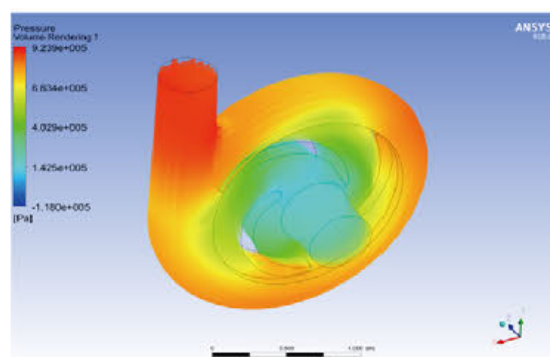
高端的产品设计研发技术

I THE CFD ANALYSIS TECHNOLOGY BASED ON THE MULTI-PHASE FLOW

基于多相流的CFD分析技术

应用CFD技术对浆体输送泵内部速度场、压力场进行分析计算，对性能参数进行预测及优化设计，实施多相流动特性、颗粒磨损特性及其对泵效率的影响机理研究，实现水力模型的系列化拓展。

By CFD technology to calculate the speed of slurry in the pump and pressure. After Design and data prediction of characteristics, to do R&D characteristics of multi-phase flow and particles wear that effect for the pump, to achieve the development of hydraulic power model.

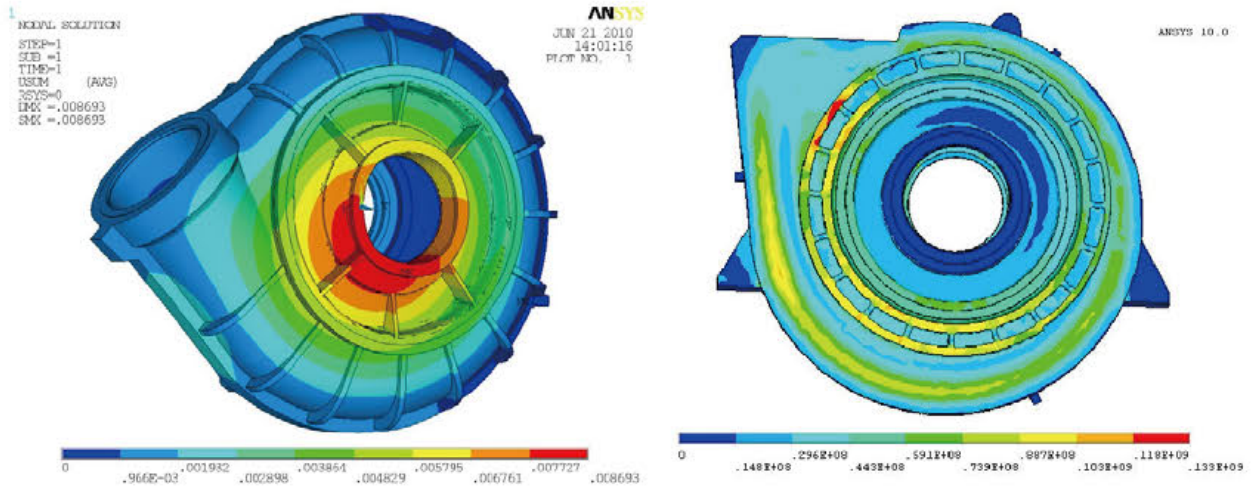


ANALYSIS OF STRENGTH AND OPTIMAL DESIGN

强度分析及优化设计

利用有限元分析，计算不同（包括稳定运行、启/停、变动）工况时蜗壳内周向和径向的应力分布状态，找出最大应力点，进行强度校核。使零件刚/强度性能满足要求，同时减少设计冗余。

In order to let the stiffness and strength of pump to satisfied the operation conditions, increase cost/effectiveness ratio and reduce Redundancy design technology, by use finite element to find the max point of stress, analysis and proof the strength of stress after calculate the stress distribution status of axial and longitudinal in the pump when the pump in the different operation conditons of working, on or off or others.

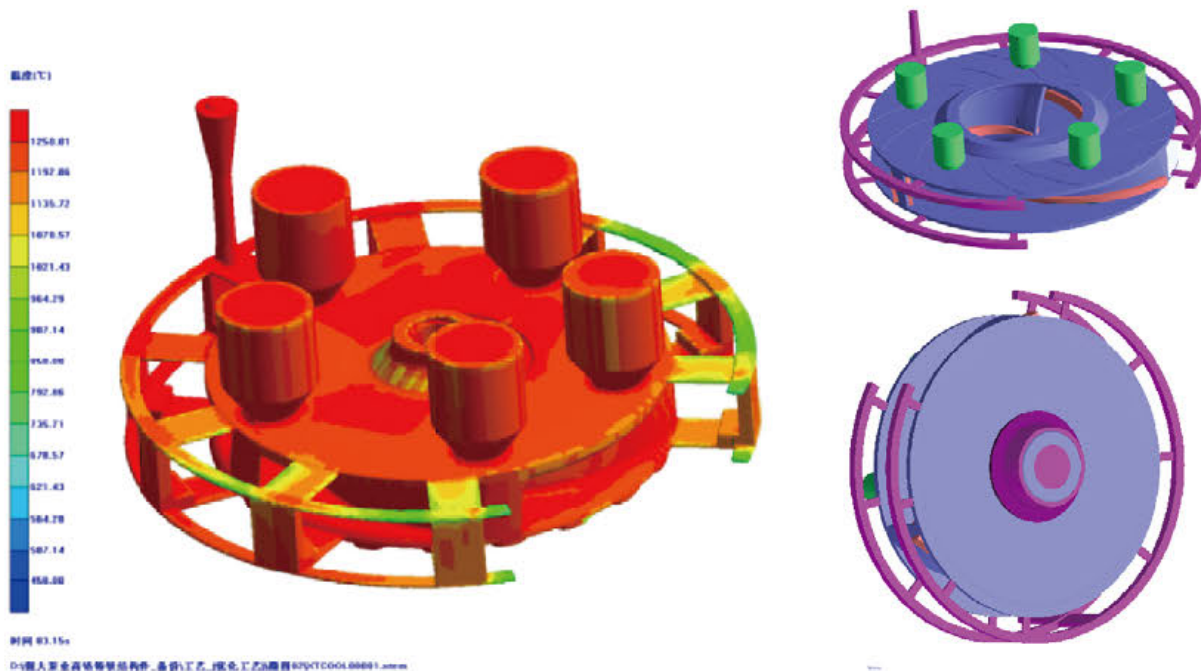


CAE TECHNOLOGY FOR CASTING

铸造 CAE技术

利用CAE技术精准模拟浇注全过程，进行温度场、流动场、应力场计算分析，模拟充型及凝固过程，准确预测铸件的缩孔缩松缺陷，优化工艺，实现产品质量的持续改进。

By use CAE technology to pouring-accurate simulation and prediction technical and achieve the development of quality. After calculate and analysis of progress of model simulation and solidify,the temperature, flowing and stress, to accurate expect the Shrinkage porosity defect of casting.



DESIGN OF 3D MODEL | 三维 设计

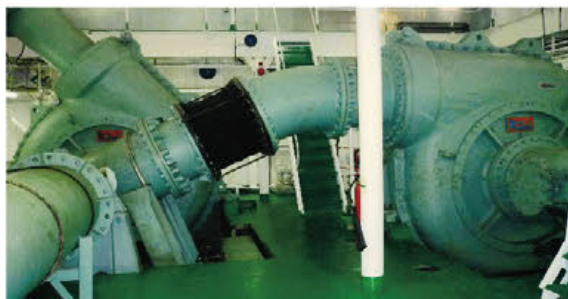
所有产品的设计在三维环境中进行。设计人员对零件进行三维实体造型设计，部件整机在计算机系统中进行模拟安装、运转及配合干涉核验，保证结构合理，组配科学，维修方便，外形美观。

All products are designed by 3D model to confirm the appropriately scientific designed and beautiful of structure, easy to maintain. All designers use 3D model design for all pump spare parts. Pump spare parts and pumps all be designed and simulate installation, operation and other test in the computer.



DREDGING PROJECTS

疏浚项目客户



中交天津航道局天极号挖泥船800WN型45度、90度舱内泵
800WN Inboard Pump (45° and 90°) On Site In "Tianji" Dredger Of CCCC Tianjin Dredging Company



广州航道局1000WN指导安装调试
Guangzhou Dredging Co., Ltd., 1000 WN Guide Installation And Debugging



中国交通建设股份有限公司
China Communications Construction Company Ltd.



350WN 舱内泵无锡太湖清淤
350WN In-cabin Pump Wuxi Taihu Lake Dredging



700WN兴港6号
700WN Xinggang No. 6



3800m³/h绞吸挖泥船
3800m³/h Cutter Suction Dredger



13500m³耙吸挖泥船
13500m³ Trailing Suction Dredger



南京航道工程局3000m³/h绞吸挖泥船
Changjiang Nanjing Waterway Bureau 3000m³/h
Cutter Suction Dredger



长江航道局2000m³/h绞吸挖泥船
Changjiang Waterway Bureau 2000m³/h Cutter
Suction Dredger



马来西亚超巨型耙吸挖泥船32000m³
SDN BHD Malaysia Trailing Suction Dredger 32000m³



中交天津航道局天风号挖泥船作业现场
On Site Operation Of The Tianfeng Dredger From
CCCC Tianjin Dredging Company



中交天津航道局11000m³耙吸挖泥船
11000m³ Trailing Suction Dredger From CCCC
Tianjin Dredging Company

DREDGING PROJECTS

疏浚项目客户



中交天津航道局800WN泵运行检查
CCCC Tianjin Dredging Co., Ltd., 800WN Pump
Operation Inspection



中交天津航道局滨海3000项目部3号船
800WN型舱内泵
800WN inboard Pump In 3rd Dredger Of Project
Binhai 3000 Of CCCC Tianjin Dredging Company



中交天津航道局天骥号挖泥船作业现
“Tianji” Dredger Of CCCC Tianjin Dredging Company
Working On Site



中交天津航道局天禹号挖泥船作业现场
“Tianyu” Dredger Of CCCC Tianjin Dredging
Company Working On Site



6000m³/h绞吸挖泥船
6000m³/h Cutter Suction Dredger



700WNA 挖泥泵项目
700WNA Dredging Pump Project



3500m³/h绞吸挖泥船 3500m³/h Cutter Suction Dredger



20000m³巨型耙吸挖泥船 20000m³ Trailing Suction Dredger



2000m³/h绞吸挖泥船 2000m³/h Cutter Suction Dredger

为客户安全生产 高效运行保驾护航

TOGETHER WITH KINGDA FOR SAFE
PRODUCTION AND EFFICIENT OPERATION

强大泵业集团有限公司

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